REMARKS

Reconsideration of all grounds of rejection in the Office Action based upon the above amendment, and allowance of all of the pending claims are respectfully requested in light of the following remarks.

Claims 1-11 are rejected. Claim 1 and 5 are independent claims. Claims 1 has been amended. Claims 1-11 are now pending.

Applicants wish to thank the Examiner for pointing out two informalities found in the disclosure. In response, applicants have corrected the specification on page 6 line14 and page 8 line13 and 15 as suggested by reciting that a 'chirp free' not 'chirper free' Mach-Zehnder light intensity modulator. Withdrawal of this objection is respectfully requested.

Claim 1 was amended. Support for this feature is found in the specification on page 7, line 15 and FIGs. 2 and 5 (Reference Character 500).

Claims 1, 2 and 4 stand rejected under 35 USC § 103(a) as being unpatentable over Miyamoto et al (US 6,865,348) in view of Miyamoto et al (Us 2003/0002121) and Kim et al, "Demonstration of Optical Duobinary Transmission System Using Phase Modulator and Optical Filter," IEEE Photonic Technology Letter, Vol. 14, No. 7 page 1010-1012, July 2002). Similarly claims 5-9 stand rejected under 35 USC 103(a) as being unpatentable over Miyamoto et al (US 6,865,348) in view of Miyamoto et al (US 2003/0002121) and Kim et al, "Demonstration of Optical Duobinary Transmission System Using Phase Modulator and Optical Filter," IEEE Photonic Technology Letter, Vol. 14, No. 7 page 1010-1012, July 2002). In response, applicants respectfully traverse

these grounds of rejection based upon the above amendment to the base claims and the following remarks.

Claim 1, as amended, recite a duo-binary optical transmission apparatus, comprising, *inter alia*, a **light intensity modulator** and a **optical band pass filter** coupled to receive the output of the light intensity modulator to generate a duo-binary optical signal. Similar feature is recited in claim 5.

The present invention provides that an optical signal passes through an optical band pass filter and is converted into the duo-binary optical signal (Page 7 lines 16-22).

It is respectfully submitted that neither Kim nor any of the other references cited by the instant Office Action suggest or teach that an optical band pass filter coupled to receive the output of the light intensity modulator to generate a duo-binary optical signal.

As illustrated in Kim Fig.1, an optical band pass filter is positioned on the block following a phase modulator, and its operation is different from that of the present invention. For example, Kim's duobinary transmission system provides that the intensity of the outputted signal of the phase modulator is constant whereas only the phase information is modulated. Since conversion causes frequency transition, the part where the phase is converted has frequency component where some parts of the central frequency is transited. Accordingly, the transited frequency components can not pass through the filter by phase conversion when the optical band pass filter is passed by.

Therefore, neither Kim nor any of the other references cited by the instant Office Action suggest or teach that an optical band pass filter coupled to receive the output of the light intensity modulator to generate a duo-binary optical signal.

The other claims in this application are each dependent from the independent claim discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited reference. A notice of Allowance is respectfully requested.

Should the Examiner deem that there are any issues, which may be best, resolved by telephone communication, please contact Applicant's undersigned Attorney at the number listed below.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Mail Stop Amendment, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on January 2, 2007.

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(Signature and Date)